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Attorney Docket No. 1293.1821

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:

Young-do JUNG

Application No.: 10/608,063

Group Art Unit: 2837

Filed: June 30, 2003

Examiner: Masih, Karen

For: METHOD AND APPARATUS FOR CONTROLLING DC MOTOR

**INFORMATION DISCLOSURE STATEMENT**

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

Sir:

In accordance with the duty of disclosure provisions of 37 CFR § 1.56, there is hereby provided certain information which the Examiner may consider material to the examination of the subject U.S. patent application. It is requested that the Examiner make this information of record if it is deemed material to the examination of the subject application.

1. Enclosures accompanying this Information Disclosure Statement are:

- 1a. ☒ Form PTO-1449.
- 1b. ☒ Copies of IDS citations.
- 1c. ☒ An English language copy of an Office Action from a counterpart foreign application or a PCT International Search Report.
- 1d. ☒ English language translation (Abstract only) attached to each non-English language publication.
- 1e. ☐ Explanations of Relevancy of References (ATTACHMENT 1(e), hereto) for providing a concise explanation of each non-English publication.
- 1f. ☐ List of Copending Applications (ATTACHMENT 1(f), hereto).
- 1g. ☐ List of Additional Submitted Documents (ATTACHMENT 1(g), hereto).

2. ☐ This Information Disclosure Statement is filed under 37 CFR §1.97(b):

(Check either Item 2a or 2b or 2c or 2d)

- 2a. ☐ Within three months of the filing date of a national application other than a Continued Prosecution Application under § 1.53(d);
- 2b. ☐ Within three months of the date of entry of the national stage as set forth in § 1.491 in an international application.
- 2c. ☐ Before the mailing of a first Office Action on the merits; or
- 2d. ☐ Before the mailing of a first Office Action after the filing of a Request for Continued Examination under § 1.114.

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3. ☐ This Information Disclosure Statement is filed under 37 CFR § 1.97(c) after the period specified in paragraph 2 above but before the mailing date of any of a Final Office Action under § 1.113, a Notice of Allowance under § 1.311 or an action that otherwise closes prosecution in the application, AND

*(Check either Item 3a or 3b; Item 3b to be checked if any reference known for more than 3 months)*

- 3a. ☐ The §1.97(e) Statement in Item 5 below is applicable; OR  
3b. ☐ The \$180.00 fee set forth in 37 C.F.R. §1.17(p) is:  
☐ enclosed.  
☐ to be charged to Deposit Account No. 19-3935.

4. ☒ This Information Disclosure Statement is filed under 37 CFR §1.97(d) after the period specified in paragraph 3 above, but on or before payment of the Issue Fee, AND

- 4a. ☒ The § 1.97(e) Statement in Item 5 below is applicable; AND  
4b. ☒ The \$180.00 fee set forth in 37 C.F.R. §1.17(p) is:  
☒ enclosed.  
☐ to be charged to Deposit Account No. 19-3935.

5. ☒ Statement under § 1.97(e) (*applicable if Item 3a or Item 4a is checked*)

*(Check either Item 5a or 5b)*

- 5a. ☒ In accordance with 37 CFR § 1.97(e)(1), it is stated that each item of information contained in this Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement.  
5b. ☐ In accordance with 37 CFR § 1.97(e)(2), it is stated that no item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in this Information Disclosure Statement was known by any individual designated in §1.56(c) more than three months prior to the filing of this Information Disclosure Statement.

6. ☐ This is a continuation/divisional/continuation-in-part application under 37 CFR § 1.53(b).

*(Check appropriate Items 6a and/or 6b)*

- 6a. ☐ Copies of the publications listed on the attached Form PTO-1449 which were previously cited in prior application Serial No. \_\_\_, filed on \_\_\_, and which is relied on for an earlier effective filing date for the subject application under 35 U.S.C. § 120, have been omitted pursuant to 37 CFR § 1.98(d).  
6b. ☐ Copies of the publications listed on the attached Form PTO-1449 which were not previously cited in prior application Serial No. \_\_\_, filed on \_\_\_, and which is relied on for an earlier effective filing date for the subject application under 35 U.S.C. § 120, are provided herewith.


7. ☐ This is a continuation/divisional application under 37 CFR § 1.53(d) or a Request for Continued Examination under 37 CFR 1.114.  
(Check either Item 7a or 7b)
- 7a. ☐ The Issue Fee has not been paid.
- 7b. ☐ A Petition to Withdraw from issue under 37 CFR § 1.313(c) is filed concurrently herewith or has been granted. A continuation/divisional application under 37 CFR § 1.53(d) or a Request for Continued Examination under 37 CFR 1.114, after payment of the Issue Fee, is proper in accordance with 37 CFR § 1.53(d)(1)(ii) or 37 CFR 1.114(a), respectively.
8. ☐ This is a Supplemental Information Disclosure Statement.  
(Check either Item 8a or 8b)
- 8a. ☐ This Supplemental Information Disclosure Statement under 37 CFR § 1.97(f) supplements the Information Disclosure Statement filed on \_\_\_\_\_. A bona fide attempt was made to comply with 37 CFR § 1.98, but inadvertent omissions were made. These omissions have been corrected herein. Accordingly, additional time is requested so that this Supplemental IDS can be considered as if properly filed on \_\_\_\_\_.
- 8b. ☐ This Supplemental Information Disclosure Statement is timely filed within one (1) month of the Notice under 37 CFR § 1.97 and 1.98, mailed \_\_\_\_\_.
9. ☒ In accordance with 37 CFR § 1.98, a concise explanation of what is presently understood to be the relevance of each non-English language publication is:  
(Check appropriate Items 9a, 9b, 9c and/or 9d)
- 9a. ☒ satisfied because all non-English language publications were cited on the enclosed "English language version of the search report or action which indicates the degree of relevance found by the foreign office". (See MPEP § 609, Minimum Requirements for an Information Disclosure Statement, Part A(3): Concise Explanation of Relevance, 8th Ed.)
- 9b. ☐ set forth in the application.
- 9c. ☒ satisfied because an English language translation (Abstract only) is attached to each non-English language publication.
- 9d. ☐ enclosed as Attachment 1(e), hereto.
10. No admission is made that the information cited in this Statement is, or is considered to be, material to patentability nor a representation that a search has been made (other than search report(s) from a counterpart foreign application or a PCT International Search Report, if submitted herewith). 37 CFR §§ 1.97(g) and (h).

11. The Commissioner is authorized to credit any overpayment or charge any additional fee required under 37 CFR § 1.17 for this Information Disclosure Statement to Deposit Account No. 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

Dated: August 4, 2004  
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Sheet 1 of 1

FORM PTO-1449

U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICE

ATTORNEY DOCKET NO.

1293.1821

APPLICATION NO.

10/608,063

## LIST OF REFERENCES CITED BY APPLICANT

(Use several sheets if necessary)

FIRST NAMED INVENTOR

Young-do JUNG

FILING DATE

June 30, 2003

GROUP ART UNIT

2837

## U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NO.	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
	AA	4,777,609	10/11/1988	Cavill et al.			
	AB						
	AC						
	AD						
	AE						
	AF						

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NO.	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION YES NO	
	AG	6-286276	10/11/1994	Japan			Abs.	
	AH							
	AI							
	AJ							
	AK							
	AL							

OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)

TRANSLATION  
YES NO

	AM			
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EXAMINER

DATE CONSIDERED

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



## NOTICE TO SUBMIT RESPONSE

### Patent Applicant

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### Attorney

Name: Young-pil Lee et al.  
Address: 2F Cheonghwa Bldg., 1571-18 Seocho-dong, Seocho-ku, Seoul,  
Korea

Application No.: 10-2002-0039153

Title of the Invention: Method and Apparatus for Controlling DC Motor

According to Article 63 of the Korean Patent Law, the applicant is notified that the present application has been rejected for the reasons given below. Any Argument or Amendment which the applicant may wish to submit, must be submitted by September 8, 2004. (An indefinite number of one-month extensions in the period for submitting a response may be obtained upon request, however no official confirmation of the acceptance of a request for an extension will be issued.)

### Reasons

The invention as recited in the claims 1-6 could have been easily invented by one of ordinary skill in the art prior to the filing of the application due to the below mentioned point, and thus this application is rejected according to Article 29(2) of the Korean Patent Law.

Claims 1-6 of the present invention provide a method and apparatus for controlling a direct current (DC) motor that indicates the user of an error occurrence when the difference of velocity between a reference velocity and the current velocity is greater than a velocity error limit value. However, Japanese Laid-Open Publication No. hei 06-286276 discloses a method and apparatus for calculating a voltage value to be applied to a carrier motor based on a difference between the actual speed of a carrier motor and the speed of speed commanding value, and detecting a carrier jam by comparing the value of current at each time point when the carrier motor moves at a constant speed. In addition, US Publication

No. 04777609 discloses a print head motor control system. The control system detects the speed of a motor, compares the speed of the motor with a predetermined set speed and modifies the speed of the motor to be in the range of a predetermined speed. Therefore, the present invention can be easily made by those skilled in the art with reference to the cited references.

Enclosure: Japanese Laid-Open Publication No. hei 06-286276 (published on Oct. 11, 1994)  
US Patent Publication No. 04777609 (published on Oct. 11, 1988)

8 July 2004

Yong-hae Jeonn/Examiner  
Electric Examination Division  
Electric and Electronic Examination Bureau  
Korean Intellectual Property Office

출력 일자: 2004/7/9

발송번호 : 9-5-2004-027609161

수신 : 서울 서초구 서초3동 1571-18 청화빌딩 2

발송일자 : 2004.07.08

층(리&목특허법률사무소)

제출기일 : 2004.09.08

이영필 귀하

137-874

## 특허청 의견제출통지서



출원인 명칭 삼성전자주식회사 (출원인코드: 119981042713)

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대리인 성명 이영필 외 1 명

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출원번호 10-2002-0039153

발명의 명칭 직류 모터 제어 방법 및 장치

이 출원에 대한 심사결과 아래와 같은 거절이유가 있어 특허법 제63조의 규정에 의하여 이를 통지 하오니 의견이 있거나 보정이 필요할 경우에는 상기 제출기일까지 의견서[특허법시행규칙 별지 제 25호의2서식] 또는/및 보정서[특허법시행규칙 별지 제5호서식]를 제출하여 주시기 바랍니다. (상기 제출기일에 대하여 매회 1월 단위로 연장을 신청할 수 있으며, 이 신청에 대하여 별도의 기간연장 승인통지는 하지 않습니다.)

### [이 유]

이 출원의 특허청구범위 제1항 내지 제6항에 기재된 발명(이하 "본원발명"이라 한다)은 그 출원전에 이 발명이 속하는 기술분야에서 통상의 지식을 가진 자가 아래에 지적한 것에 의하여 용이하게 발명할 수 있는 것이므로 특허법 제29조제2항의 규정에 의하여 특허를 받을 수 없습니다.

본원발명은 기준속도와 현재 속도간의 차이가 속도 에러 제한값보다 크면 에러가 발생하였음을 알리는 직류모터 제어방법 및 장치에 관한 것이나, 일본공개특허공보 평6-286276호(이하 "인용발명1"이라 한다)에는 캐리어 모터의 실제 속도값과 속도지령값간의 편차에 근거하여 모터에 인가할 전압값을 계산하고, 정속 운동시에는 전회 각 시점의 전류값을 비교하여 캐리어의 쟁발생을 검출하는 방법 및 장치에 관하여 개시되어 있고, 미국특허공보 제4777609호(이하 "인용발명2"라 한다)에는 모터의 속도를 검출하고, 이를 원하는 설정 속도와 비교하여, 모터의 속도가 일정 속도범위 내에 있도록 속도를 보정하는 프린터 헤드 모터 제어 시스템에 관하여 개시되어 있으므로, 본원발명은 본 발명이 속한 기술분야에서 통상의 지식을 가진 자가 상기 인용발명1,2에 의하여 용이하게 발명할 수 있습니다. 끝.

### [참 부]

첨부 1 일본공개특허공보 평06-286276호(1994.10.11) 1부.

첨부2 미국특허공보 04777609호(1988.10.11) 1부. 끝.

2004.07.08

특허청

전기전자심사국

전기심사담당관실

심사관 전용해



0017712



출력 일자: 2004/7/9

<<안내>>

문의사항이 있으시면 ☎ 042-481-5657 로 문의하시기 바랍니다.

특허청 직원 모두는 깨끗한 특허행정의 구현을 위하여 최선을 다하고 있습니다. 만일 업무처리과정에서 직원의 부조리행위가 있으면 신고하여 주시기 바랍니다.

▶ 홈페이지([www.kipo.go.kr](http://www.kipo.go.kr))내 부조리신고센터